



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

HA

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/719,382

11/20/2003

Keiji Kuroda

4598

2554

21553

7590

07/31/2006

FASSE PATENT ATTORNEYS, P.A.

P.O. BOX 726

HAMPDEN, ME 04444-0726

EXAMINER

FIGUEROA, FELIX O

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/719,382	Applicant(s) KURODA ET AL.	
	Examiner Felix O. Figueroa	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,8 and 12-25 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1,2,4,8 and 12-25 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/21/06 & 6/23/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 13, 18, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi (US 6,565,389) in view of Pickles (US 6,663,407).

Igarashi discloses a combination including a receptacle connector and a plug connector substantially as claimed. Igarashi discloses substantially the claimed invention except for the plug width and depth fitting faces and the pair of latch arms.

Pickles teaches a receptacle connector body (1) including a pair of latch arms (defined by 14 and 16) extending directly from the receptacle connector body outward in the depth direction from two locations that are spaced from each other in the width direction on the receptacle connector body and wherein the latch arms are adapted and constructed to undergo elastic deformation in the width direction; and each latch arm being provided with a retaining part (at 164) projecting inward in the width direction at an outer free end of the latch arm in the depth direction, and each said retaining part respectively including a guiding part (162) that generates a component force acting outward in the width direction so as to outwardly elastically deflect each latch arm respectively due to a pressing force acting on the guiding part toward the counterpart member in the thickness direction, a receptacle width fitting face (1642) facing inward in

the width direction and adapted to cooperate with a mating member width fitting face (443) of the plug connector, and a receptacle depth fitting face (not labeled) facing inward in the depth direction and adapted to cooperate with the mating member depth fitting face (441/442) of the plug connector in order to provide a secure mechanical connection between the receptacle and the mating member. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the combination of Igarashi with a pair of latch arms and cooperating fitting faces, as taught by Pickles, to provide a secure mechanical connection between the receptacle and the mating member.

Claims 4, 8, 15, 16 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi and Pickles, and further in view of Wu (US 6,565,383).

Igarashi, as modified by Pickles, discloses substantially the claimed invention except for the latch being metal and integral with the metallic cover. Wu teaches a receptacle (10) including a metallic cover (16) and latch arms integral with the metallic cover, thus simplifying the molding process of the receptacle and providing wearing resistant latch arms. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the latch arms integrally with the metallic cover, as taught by Wu, to simplify the molding process of the receptacle and provide wearing resistant latch arms.

Regarding claims 8 and 16, Igarashi, as modified by Pickles, discloses the plug connector comprising an insulating plate-shaped plug connector body (front of Igarashi's plug) that has the shape substantially a rectangle, the contact having conductivity and

being provided on the plug connector body, the contact comprising a contacting part being exposed at the inward edge in the depth direction of the plug connector body at least on one face thereof in the thickness direction and a connecting part connected to the electric wire or the flat type flexible cable, and the plug width fitting face and the plug depth fitting face being provided on the plug connector body at the two locations spaced from each other in the width direction thereof (as shown/taught by Pickles).

Claims 12, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi and Pickles, and further in view of Kajinuma (US 6,361,358).

Igarashi, as modified by Pickles, discloses substantially the claimed invention except for the concaved parts being at corners of the plug connector. Kajinuma teaches a plug connector having the concave parts (between 164,156) at corners of the plug connector in order to provide a small profile plug connector and maximize space usage. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to a plug connector of Igarashi having the concave parts at corners of the plug connector, as taught by Kajinuma, to provide a small profile plug connector and maximize space usage.

Claims 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi, Pickles and Wu, and further in view of Kajinuma.

Igarashi, as modified by Pickles, discloses substantially the claimed invention except for the concaved parts being at corners of the plug connector. Kajinuma teaches a plug connector having the concave parts (between 164,156) at corners of the plug connector in order to provide a small profile plug connector and maximize space usage.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to a plug connector of Igarashi having the concave parts at corners of the plug connector, as taught by Kajinuma, to provide a small profile plug connector and maximize space usage.

Response to Arguments

Applicant's arguments filed 04/28/2006 have been fully considered but they are not persuasive.

In response to applicant's arguments that Igarashi does not disclose or suggest any problem that must be addressed or overcome by providing a latching structure, please note that it is not required that the prior art (in this case, the Igarashi) state or recite any specific need or deficiency in order for one of ordinary skill in the art to be motivated to improve upon such prior art (i.e. adding a latching structure to provide a secure mechanical connection).

In response to applicant's argument that the latch structure of Pickles only relates to circuit cards, please note that it has been held that in order to be relied upon as a basis for rejection of the claimed invention, a prior art reference must be reasonably pertinent to the particular problem with which the applicant was concerned. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Pickles discloses the use of a latching mechanism in order to provide a secure mechanical connection between mating electrical members. Furthermore, please note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed

invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to Applicant's arguments that a latching structure for a card edge connector would not serve the same purpose and would not solve the same problems in the different context of a flexible cable plug connector, please note that a latching mechanism as taught by Pickles provide a (more) secure electrical connection.

Applicant's arguments with respect to the latch arms of Pickles have been considered but are moot in view of the new ground(s) of rejection.

In response to Applicant's arguments regarding claim 4, please note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to Applicant's arguments that Kajinuma does not disclose "an insulating plug connector having concave part at the corners of the plug connector", please note that Igarashi (and Pickles and Wu) teaches an insulating plug connector body. Please note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references

Art Unit: 2833

would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Kajinuma teaches the use of concave part at the corners of the plug connector.

Please note that the fact that Kajinuma discloses an additional function (i.e. providing ground), does not obviate the presented mechanical/retaining characteristics of the concave parts.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (571) 272-2003. The examiner can normally be reached on Mon.-Fri., 10:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 Ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2833

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Felix O. Figueroa
Art Unit 2833